

Remarks

This amendment is in response to the Office Action dated April 9, 2004 wherein the Examiner rejected claims 1-21, 24 and 26-35 but indicated the allowability of claims 1-10 and 15-16 if rewritten to overcome a 35 USC §112 rejection.

The Examiner first rejected claims 1-16, 27-32 and 35 under 35 USC §112 as failing to comply with the written description requirement. Particularly, the Examiner held there is no basis in the disclosure for reciting the crane post is vertically aligned with the axle or axis of rotation of the wheels. The Examiner held that because Figure 2 allegedly shows the post behind the axle, then the other drawings cannot be relied on to support this limitation.

Applicants disagree. First of all, the specification has been amended above to correct the description of Figure 2 as a "perspective view". This is supported by the fact that the foreground wheels and the rear longitudinal edge of the background wheels on the same axle are both visible. In contrast, on part an elevational view, the background wheel would be obscured by the foreground wheel.

Furthermore, informal drawing Figure 2 is clearly set forth to describe the structure of the crane boom, and the structure of the trailer and wheels in only shown in fragment. The detailed "layout" or "plan" of the crane is shown in Figures 3, 4, 5, and particularly Figures 6 and 7. All of these figures support the post being substantially aligned with the axle. Also, one of skill in the art would not refer to the perspective fragmentary view such as Figure 2 to determine the

position of the center post with respect to the axle, one of skill in the art would refer to a plan or layout view.

In addition, at page 12 lines 7-9, referring to Figure 7, it is stated:

"The lateral beams 146, 148 are spaced approximately equidistant to and on opposite sides of an axle 149 which supports the undercarriage 102 from the wheels 32, 34."

Clearly the level of detail of Figure 7 along with this description gives support for the post being substantially on center with the axle.

Applicants have nonetheless amended claims 1, 11, 27 and 35 to recite that the post is centered on a longitudinal position located between the longitudinal front edge and rear edge of the wheels. This positioning is in accord with Figure 2 as well. All of the figures support this limitation.

The Examiner next rejected claims 1-19 and 27-32 for a number of antecedent basis and clarity problems. These claims have been corrected above which should overcome this objection.

The Examiner next rejected claim 11 under 35 USC §102(b) as being anticipated by *Larva et al.* *Larva* describes a logging machine having a frame 10 and a derrick loader 20. The frame 10 has a main portion 15 and a secondary portion 19. The machine does not have a rectangular trailer platform with the crane post located centrally with respect thereto. *Larva* does not disclose a seat outside of said frame. Applicant's claim 11 describes a compact arrangement wherein the seat does not take up platform space but instead is cantilevered outside the frame.

The Examiner next rejected claims 17, 19, 27 and 32 under 35 USC §102(b) as being anticipated by *Harsch*.

The Examiner next rejected claims 17, 19, 27 and 32 under 35 USC §103(a) as being unpatentable over *Nelsen* in view of *Harsch*.

Applicant has amended independent claims 17 and 27 similar to the amendment to allowable independent claim 1 and as such these claims should all be allowable. Applicant's compact trailer crane having a 5000 pound weight with a reach of 16 feet and a lifting capacity of 1200 pounds is a versatile effective apparatus for maintenance work where a large crane would damage the ground on a golf course or would be too large for hard to access areas.

The Examiner next rejected claim 11 under 35 USC §103(a) as being unpatentable over *Harsch* in view of *Hallstrom*. Neither *Harsch* nor *Hallstrom* disclose the compact, effective layout as described in claim 11 wherein the control panel is located in front of the post facing laterally, and the seat is located outside of the frame.

The Examiner next rejected claims 12-14 under 35 USC §103(a) as being unpatentable over *Harsch* in view of *Hallstrom* and further in view of *Havercamp et al.* *Havercamp* also does not disclose the compact, effective layout as described in claim 11 wherein the control panel is located in front of the post facing laterally, and the seat is located outside of the frame.

The Examiner next rejected claims 12, 13, 18, 29 and 33-35 under 35 USC §103(a) as being unpatentable over *Nelson* in view of *Harsch* and further in view of *Havercamp et al.* However, none of the references disclose the compact,

effective layout as described in claim 11 wherein the control panel is located in front of the post facing laterally, and the seat is located outside of the frame.

The Examiner next rejected claims 18 and 29 under 35 USC §103(a) as being unpatentable over *Harsch* in view of *Havercamp et al.* However, based on the allowability of independent claim 1 and the similar limitations added to independent claims 17 and 27 these claims should now be allowable.

The Examiner next rejected claims 20 and 30-35 under 35 USC §103(a) as being unpatentable over *Harsch* in view of *Havercamp et al.* and further in view of *Hallstrom*. However, based on the allowability of independent claim 1 and the similar limitations added to independent claims 17 and 27 these claims should now also be allowable.

With regard to independent claim 33 and dependent claims thereof, Applicant asserts that an all-in-one, self contained sheet piling trailer crane apparatus is not suggested by a combination of *Harsch* in view of *Havercamp*. The sheet piling driver power unit of *Havercamp* is not configured to be mounted onto the crane trailer of *Harsch*. There is no suggestion in *Havercamp* to mount a hydraulic power unit for driving a vibratory sheet pile driver to the trailer frame of a crane used to support the vibratory driver as a permanent on-board component. According to the invention, the vibratory driver power unit being permanently mounted, adds to the effective weight of the trailer crane.

There is also no suggestion in *Havercamp* to integrate the controls for both the crane and the vibratory driver at one control station on board the crane trailer.

Particularly, the invention provides a compact apparatus for performing sheet piling in close quarters and in hard to access areas by combining the crane function and the sheet piling function on a single towable trailer frame. It has heretofore been unknown to combine these functions on a compact towable frame. For example *Haverkamp et al.* describes a hydraulically driven vibratory driver being supported from a crane, but does not disclose or suggest the hydraulic controls of the vibratory driver being incorporated onto the crane platform. Since most cranes are expensive and typically serve other lifting functions, it would not be suggested by the prior art to customize such a crane to include integrated sheet piling power unit and functional controls on the crane frame. The heretofore known vibratory pile driver equipment is typically supported by a backhoe wherein the vibratory equipment is separately stationed and controlled, requiring the attention of two operators for the respective backhoe and vibrator operation.

The present invention of claims 33 through 35 provides a self-contained crane and sheet piling apparatus that is not suggested or taught in the prior art, wherein one operator can control the crane and the vibratory sheet pile driver from a single control station and the crane and sheet piling power units are integrated on a single trailer frame. The same explanation of patentability applies to dependent claim 12, which should be allowable as well.

The Examiner next rejected claims 21 and 24 under 35 USC §103(a) as being unpatentable over *McIntosh et al.* However, based on the allowability of independent claim 1, and the similar limitations added to independent claim 17,

these claims should now be allowable.

The Examiner next rejected claims 21 and 24 under 35 USC §103(a) as being unpatentable over *Harsch*. However, based on the allowability of independent claim 1, and the similar limitations added to independent claim 17, these claims should now be allowable.

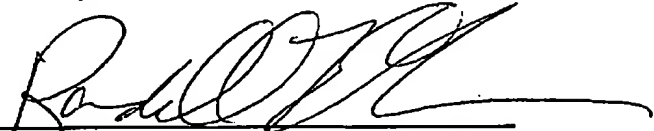
The Examiner next rejected claims 26 and 28 under 35 USC §103(a) as being unpatentable over *Harsch* in view of *Searle*. However, based on the allowability of independent claim 1 and the similar limitations added to independent claims 17 and 27 these claims should now be allowable.

The Examiner next rejected claims 26 and 28 under 35 USC §103(a) as being unpatentable over *Nelson* in view of *Harsch* and further in view of *Searle*. However, based on the allowability of independent claim 1, and the similar limitations added to independent claims 17 and 27, these claims should now be allowable.

The Examiner next indicated that claims 1-10 could be allowable if rewritten to overcome the rejections under 35 USC §112. Claim 1 has been corrected from 6000 pounds to 5000 pounds because the 6000 pounds includes the vibratory driver which is introduced in a dependent claim. Without the vibratory driver, the trailer crane weights about 5000 pounds. The Examiner also indicated that claims 15 and 16 would be allowable if rewritten in independent form including all the limitations of their base claim and intervening claims and to overcome the 35 USC §112 rejection. Applicant has complied with these suggestions and as such claims 1-10 and 15-16 should now be allowable.

Applicant asserts that all claims are in condition for allowance and request
issuance of the application.

Respectfully submitted,

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